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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/482,354	01/14/2000	Hidehiro Iizuke	381NP/48511	6862

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Washington, DC 20044-4300

EXAMINER

LANGEL, WAYNE A

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 02/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



**UNITED STATES DEPARTMENT OF COMMERCE  
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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
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EXAMINER

Wayne A. Lampel

ART UNIT PAPER NUMBER

1754

DATE MAILED:

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

**OFFICE ACTION SUMMARY**

☒ Responsive to communication(s) filed on 12-14-03

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire \_\_\_\_\_ month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

**Disposition of Claims**

☒ Claim(s) 1, 3-5 and 19-29 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1, 3-5 and 19-29 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

**Application Papers**

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

☐ Notice of Reference Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

**-- SEE OFFICE ACTION ON THE FOLLOWING PAGES --**

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Claims 1, 3, 4, 19-21 and 23-27 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, line 6, there is no antecedent basis for "the internal engine". The word --combustion-- should be inserted after "internal" to avoid this rejection. Claims 19 and 20 are indefinite in that they depend from claim 2, which has been cancelled. In claim 27, there is no antecedent basis for "said composite oxide". Also in claim 1, the recitation of "group consisting of Ti, Si, Zr" is improper Markush terminology. The word --and-- should be inserted before "Zr" to avoid this rejection.

Claims 25-27 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no "description support" in the original specification for forming the catalyst by heat treatment at a temperature of at least 600°C (or at a temperature of approximately 700°C), or for forming the composite oxide by heat treatment of the catalyst.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-5, 19-23, 25, 26, 28 and 29 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 97/47864. No distinction is seen between the process recited in applicant's claims, and that disclosed in WO 97/47864. Table 2 on pages 45-47 and Table 3 on pages 47-48 of WO 97/47864 discloses the catalyst recited in applicant's claims, except for the presence of a CO adsorbent component such as palladium. However claims 9 and 10 of WO 97/47864 disclose that palladium may be present as a component of a catalyst. Applicant's argument, that according to the present invention, the exhaust cleaning catalyst has a CO desorption capacity that reaches a maximum level at a temperature within the

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range of 200 to 220°C during the heating test in which the temperature is raised at a rate of 5 to 10°C per minute in a helium gas flow, is not convincing, since applicant's claims do not require such heating test, but merely recite the heating test as a test which measures the maximum level of the CO desorption capacity of the catalyst, which CO desorption capacity would be inherent in the catalyst disclosed in WO 97/47864. Applicant's argument, that the temperature at which the desorped CO volume reaches the maximum level varies, depending on the carrying amount of palladium, even if palladium is in fact contained therein, is not convincing. Figure 25 of WO 97/47864 discloses a palladium supported amount varying from about 0.5 to 15 weight percent, which overlaps the range of palladium recited in applicant's claims. Accordingly the catalyst of WO 97/47864 would inherently have a CO desorption capacity that reaches a maximum level at a temperature within the range from 200 to 220°C, when employing a palladium content of 0.25 to 3.0%, as suggested in Figure 25 of WO 97/47864. Applicant has not explained why the catalyst of WO 97/47864 would not have the CO desorption capacity as recited in applicant's claims, when employing the palladium content of 0.25 to 3.0%.

This application apparently discloses allowable subject matter (i.e., regarding the subject matter of claim 24).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne A. Langel whose telephone number is (571) 272-1353. The examiner can normally be reached on Monday through Friday from 8 A.M. to 3:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on (571) 272-1358. The fax phone number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-0994.

WAL:cdc

January 30, 2004

*Wayne A. Langel*  
WAYNE A. LANGEL  
PRIMARY EXAMINER